

**COUNTERFORCE: LOCATING  
AND DESTROYING WEAPONS OF  
MASS DESTRUCTION**

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## TABLE OF CONTENTS

Foreword	vii
Executive Summary	ix
System-of Systems Architecture	7
Intelligence, Surveillance, and Reconnaissance (ISR)	8
Command, Control, Communications, Computing, and Intelligence (C4I)	12
Long-Range Precision Strike Forces	13
Precision Strike Weapons	15
Theater Enabling Forces	20
Distributed Ground Combat Cells	21
Carrier-Based Aircraft	22
CINC's Concept of Operations	23
Find and Characterize the WMD Targets	24
Function	25
Mobility	26
Structure	26
Environment	26
Task Resources	29
Vulnerability	30
Time Sensitivity	31
Military Value	31
Political Sensitivity	31
Collateral Damage	31
Attack and Kill (With Limited Collateral Damage)	31
Assess and Report	33
Counter-WMD Operations Plan	33
Long-Range Precision Strike	41
Endnotes	43



## FOREWORD

We are pleased to publish this twenty-first volume in the *Occasional Paper* series of the US Air Force Institute for National Security Studies (INSS). This paper is particularly timely as it addresses a critical situation that United States military forces face in deploying to forward locations and in confronting rogue states and asymmetrical challenges. Colonel Chandler explores the protection of U.S. forces from weapons of mass destruction (WMD) threats enroute to and during deployed operations. He develops a system-of-systems capability package using existing or nearly operational systems to provide early-conflict or pre-conflict dominance, enabling the introduction of traditional force packages into theater and their protection from WMD threats. He adds a detailed development of how such operations fit into the regional combatant commander's concept of operations, and a discussion of planning factors to implement the system for the CINC. The threat is real, and these ideas are worthy of full study and consideration by military planners at all levels of operations.

This paper was not written under INSS sponsorship, but was brought to our attention by the Air Staff's Policy Division, Nuclear and Counterproliferation Directorate, INSS' primary sponsor. This is only the second Occasional Paper that was not originally an INSS research project, and we believe that the timeliness of the topic, the relevance of the paper, and the originality and detailed development of its ideas fully warrant its publication for wider distribution and review.

### *About the Institute*

INSS is primarily sponsored by the National Security Policy Division, Nuclear and Counterproliferation Directorate, Headquarters US

Air Force (HQ USAF/XONP) and the Dean of the Faculty, USAF Academy. Our other sponsors currently include the Air Staff's Intelligence, Surveillance, and Reconnaissance Directorate (XOI); the Secretary of Defense's Office of Net Assessment (OSD/NA); the Defense Special Weapons Agency, the Army Environmental Policy Institute, the On-Site Inspection Agency, and the Plans Directorate of the United States Space Command. The mission of the Institute is "to promote national security research for the Department of Defense within the military academic community, and to support the Air Force national security education program." Its research focuses on the areas of greatest interest to our organizational sponsors: arms control, proliferation, national security, regional studies, Air Force policy, the revolution in military affairs, information warfare, environmental security, and space policy.

INSS coordinates and focuses outside thinking in various disciplines and across the military services to develop new ideas for defense policy making. To that end, the Institute develops topics, selects researchers from within the military academic community, and administers sponsored research. It also hosts conferences and workshops and facilitates the dissemination of information to a wide range of private and government organizations. INSS is in its fifth year of providing valuable, cost-effective research to meet the needs of our sponsors. We appreciate your continued interest in INSS and our research products.

JAMES M. SMITH  
Director



## EXECUTIVE SUMMARY

The global technological transformation of warfare has been underway since the end of the Cold War. Proliferation of weapons of mass destruction (WMD)—nuclear, biological, and chemical weapons—and advanced conventional weapons and technology are offering potential regional adversaries new operational concepts for countering American power projection. The Air Force has been responding to these evolving challenges with its own continuous process of renewal and global situational awareness that charts a course for the first quarter of the twenty-first century. The 1998 Presidential Panel to Review Long-Range Air Power added a new element to the process of reshaping Air Force strategic concepts and capabilities to meet the exigencies of a quickly evolving threat.

The proliferation of WMD and advanced conventional weapons has placed the U.S. power projection strategy under attack in several regions of the world. Asymmetric threats pose significant challenges to the U.S. military strategy. The United States, on the other hand, possesses significant strengths, including the potential to increase the tempo of warfare through long-range precision counterstrikes early in a conflict. Counterforce operations at the outset of a conflict can be effective in preventing the use of WMD and at the same time confuse, disorient, and disorganize an adversary's forces.

In order to defeat a WMD-armed adversary's asymmetric attacks, the United States needs to have in place balanced CINC concepts of operation and robust counterforce operational concepts for locating and destroying WMD early in a conflict. A system-of-systems architecture is useful in identifying the military capabilities or building blocks necessary to underwrite such a counter-WMD approach: intelligence,

surveillance, and reconnaissance (ISR); command, control, communications, computing, and intelligence (C4I); long-range precision strike forces; precision strike weapons; theater enabling forces; distributed ground combat cells; and carrier-based aircraft. The synergies among these seven building blocks make possible prompt counterforce attacks against an enemy's WMD and other military capabilities that could impede U.S. power projection operations.

When these capabilities are placed in the hands of the combatant commanders with global and regional responsibilities, new concepts of operation can be fashioned to locate and destroy WMD "before they can be used" against U.S. forces and friendly populations. New targeting models and planning tools make it possible for a combatant commander to choose from an ever-expanding number of military strike options. The creative use of intelligence in peacetime can result in workable operations plans for conflict and lay the groundwork for providing the CINC full-scope battlespace knowledge in the earliest hours of a crisis.

In regional conflicts involving adversaries armed with WMD and advanced conventional weapons, the U.S. should turn to its revolutionary advantages based on battlespace knowledge, sensors and rapid computing, stealth, precision, and aerial strike. The United States needs to create an air dominance in the earliest hours and days of a conflict. Non-linear, asymmetric U.S. long-range precision strike operations offer the best opportunity to neutralize the new found operational concepts by WMD-armed adversaries.